

Appln. No.: 10/089,011
Amdt. dated May 26, 2004
Reply to Office action of February 26, 2004

REMARKS

Reconsideration of this application as amended is respectfully requested.

The claims have been amended in a manner that obviates the objection to the drawings. The amendments to the claims also overcome the rejections under 35 U.S.C. § 112, 2nd Paragraph.

Independent claims 1 and 5 have been cancelled, thereby overcoming the rejection over Carre et al or Ralea.

Newly presented claim 14 is believed to distinguish applicant's invention patentably over the prior art of record, including Carre et al and Ralea. Claim 14 recites a method of controlling an automobile braking system in which front and back brakes are provided, with the front brakes including a pair of rotatable wheel hubs, at least two spot-type brake discs mounted on each of the wheel hubs and supported for rotation with the wheel hubs and for axial sliding movement on the wheel hubs with each disc presenting opposite circumferentially continuous annular braking surfaces. At least three spot-type friction elements are mounted on a stationary brake caliper associated with each wheel hub and interleaved with the associated brake discs and being circumferentially discontinuous so as to overlie only an angular sector of the annular braking surfaces of the brake discs. At least two of the friction elements are axially slidable on the brake caliper for engaging and disengaging the braking surfaces of the brake disc. The method further provides an electric actuator which is operative to move the friction elements into braking engagement with the brake discs. The method further includes controlling the attitude and movement of the brake discs with respect to the wheel hub and controlling the attitude and movement of the friction elements with respect to the caliper to maintain

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the brake discs and friction elements in parallel alignment during sliding movement into and out of braking engagement with one another.

The prior art Ralea reference is directed to an aircraft braking system in which the friction elements are in the form of stationary stator discs 82 which are circumferentially continuous and interleaved with circumferentially extending rotor discs 81 which rotate relative to the stationary stator discs 82 that make up the friction elements. This is unlike claim 1, which recites a method where the front brakes are formed to include annular brake discs which rotate with the hub and slide axially on the hub in combination with friction elements interleaved with the brake discs which are circumferentially discontinuous and overlie only a sector of the annular braking surfaces of the brake discs. Moreover, the step of controlling the attitude and movement of the brake discs with respect to the wheel hub and controlling the attitude and movement of the friction elements with respect to the caliper is lacking in the Ralea reference. It is respectfully submitted, therefore, that newly presented claim 14 distinguishes applicant's invention patentably over Ralea.

It is not clear from the disclosure of the Carre et al reference whether the discs 1a and 1b are slidable axially on the hub, as required by claim 14, and particularly with respect to disc 1b which appears to be fixed by what appears to be a bolt. Accordingly, the Carre et al reference does not meet the limitation of claim 1 of having at least two brake discs slidable on the hub. Moreover, the step of controlling the attitude and movement of the brake disc as called for by claim 14 is not shown in Carre et al, and it is further not clear whether the friction members 4a, 4b and 4c are annular disc-type friction elements that would be circumferentially continuous or pad-type elements which would overlay a sector of the brake discs. Accordingly, it is respectfully submitted that newly

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presented claim 14 also distinguishes applicant's invention patentably over Carre et al and should be allowed.

Newly submitted claim 15 further recites the step of including a pair of rear wheel hubs each mounting a single rear wheel disc brake that rotates with the hub and slides axially in conjunction with at least two friction elements associated with each of the rear discs. Claim 15 is believed to further distinguish applicant's invention patentably over the prior art of record.

Newly submitted claim 16 is likewise believed to distinguish applicant's invention patentably over the prior art of record including Carre et al and Ralea. Claim 16 recites a braking system for a road-going automobile that has a set of front wheels and rear wheels to be braked. The front wheels are each provided with a pair of sliding brake discs that rotate with the wheel hub of the respective front wheels and are slidable on their respective wheel hubs. At least three friction elements are associated with each pair of the front brake discs and are supported on a caliper in interleaved relation with the associated brake discs. The rear wheels are each provided with a single brake disc that is mounted on and rotates with a respective rear wheel drum and in slidable along the respective drum on which it is mounted. Each rear disc has a pair of friction elements associated therewith that are mounted by a caliper in straddling relation to the brake discs. An actuator system is provided for selectively actuating the friction elements to displace the friction elements and sliding disc into and out of braking engagement with one another. This combination is neither shown nor suggested by the prior art and thus is believed to be patentable.

It is believed that this application now is in condition for allowance. Further and favorable action is requested.

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Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this **Amendment** for U.S. Serial No.: 10/089,011 filed March 25, 2002 is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on May 26, 2004.

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